Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BULLETIN
OF THE
TORREY BOTANICAL CLUB.

Vol. IX.] New York, May, 1882. [**No. 5.**

New Species of Fungi.

By Chas. H. Peck.

(Plate XXIV.)

PHYSARELLA, *Gen. nov.*

Sporangium pervious to the base, the interior walls forming a persistent, spurious columella; capillitium composed of filaments, with here and there minute knot-like thickenings, straight tubes containing lime-granules extending from the exterior to the interior walls of the sporangium, persistently attached to the former.

A genus of Myxogasters belonging to the Physaraceae, and related to the genus *Physarum*, which, as amended by Rostafinski, is quite comprehensive and includes species that are externally quite unlike in appearance. I at first regarded our plant as an aberrant species of it, and have made it known under the name *Physarum mirabile.* But, upon more mature consideration, it seems to me that the characters above-indicated make it worthy of generic distinction. The spiniform cross-bars, which are wholly independent of the rest of the capillitium, alone furnish a character too distinctive to be overlooked. The following species is the type of the genus :

Physarella mirabilis.—Sporangium cup-shaped or subinfundibuliform, minutely rough or squamulose, reddish-yellow or tawny-yellow, rupturing irregularly, the exterior part persistently adherent to the top of the stem, the interior remaining entire and forming a persistent, hollow, yellowish, spurious columella slightly broader above and open at the top ; capillitium composed of pale slender filaments, and yellow thickenings of two kinds, one, minute scattered swellings in the filaments, the other, long and spine-like, extending horizontally from the exterior to the interior walls of the sporangium and persistenly attached to the former by their broader extremity, conspicuous after the dispersion of the spores ; stem equal or slightly tapering upward, reddish-brown ; spores globose, smooth, blackish-brown, .0003 of an inch in diameter.

Plant about one line high, on decaying wood, leaves and bark. Autumn. Michigan, Dr. D. N. DeTarr. Pennsylvania, Dr. Geo. A. Rex.

After the rupture of the sporangium and the dispersion of the spores, the threads of the capillitium remain for a time like a flocculent mass attached to the spurious columella. The spiniform tubes or cross-bars taper toward the interior walls of the sporangium, and, when this is ruptured, they break away at their inner extremity and remain fixed by their outer extremity to the exterior walls. In a vertical section of the unruptured sporangium they may be seen in position, imbedded in the mass of spores. The colored scales upon the surface of the sporangium vary considerably in size in different specimens.

CALICIOPSIS, *Gen. nov.*

Receptacle oblong-urceolate or subcylindrical, at first closed, then open and pulverulent at the apex, stipitate.

A small *Calicium*-like fungus, which does not well agree with the characters of any genus known to me, has fallen into my hands, and the present genus has been founded upon it. It partakes to some extent of the characters of some of the small substipitate species of *Cenangium*, but its more slender habit, long stem and urceolate or subcylindrical receptacle, which soon becomes pulverulent above, separate it from that genus. These same characters and its less tough or corneous substance forbid its reference to the genus *Tympanis*.

CALICIOPSIS PINEA.—Scattered or caespitose, about one line high, glabrous, shining, black; stem slender, straight or curved, slightly thickened at the base, often growing from a cluster of black sphaeriform perithecia which contain spermatoid bodies; receptacle narrowly urceolate, sometimes a little curved or inclined to one side, slightly exceeding the stem in diameter, soon brownish-pulverulent at the apex; asci oval or subelliptical, long-pedicellate, eight-spored; spores crowded, simple, elliptical, colored, .0002–.00025 of an inch long.

Bark of living pine-trees. Vermont, C. G. Pringle.

The pecular form of the receptacle is suggestive of the dry capsules of some mosses, particularly of some species of *Hypnum*. The sphaeriform bodies and their spermatoid contents are probably only another condition of this fungus. The young stems are at first pointed, but as they increase in length they become more obtuse and finally the apex develops into the receptacle. Although the plant resembles some species of *Calicium* it is wholly destitute of any thalline crust and gonidial cells, and must be deemed a fungus. The genus should be placed among the Patellariei near *Cenangium*.

EXPLANATION OF PLATE XXIV.—Fig. 1, a piece of decaying wood bearing six plants of *Physarella mirabilis*, one of them with the sporangium ruptured.—Fig. 2, two plants magnified.—Fig. 3, vertical section of the sporangium of a magnified plant showing the spine-like cross-bars imbedded in the mass of spores.—Fig. 4, a magnified plant with the sporangium ruptured and the spores dispersed. —Fig. 5, filaments from the capillitium with one of the knot-like thickenings x400. —Fig. 6, a spine-like cross-bar containing lime-granules x400.—Fig. 7, four spores x400.—Fig. 8, a piece of pine-bark bearing several plants of *Caliciopsis pinea*.—Fig. 9, a tuft of four plants magnified, two of them mature and two immature; also sphaeriform bodies at the base.—Fig. 10, two asci containing spores x400. —Fig. 11, six spores x400.—Fig. 12, six spermatoid bodies x400.

New Western Plants.

By EDWARD LEE GREENE.

BIGELOVIA (APLODISCUS) PARISHII.—Arborescent, 6–12 feet high; leaves lanceolate, 2 inches long, 3–5 lines wide, entire, with acute

Bulletin Torrey Botanical Club. **Plate XXIV.**

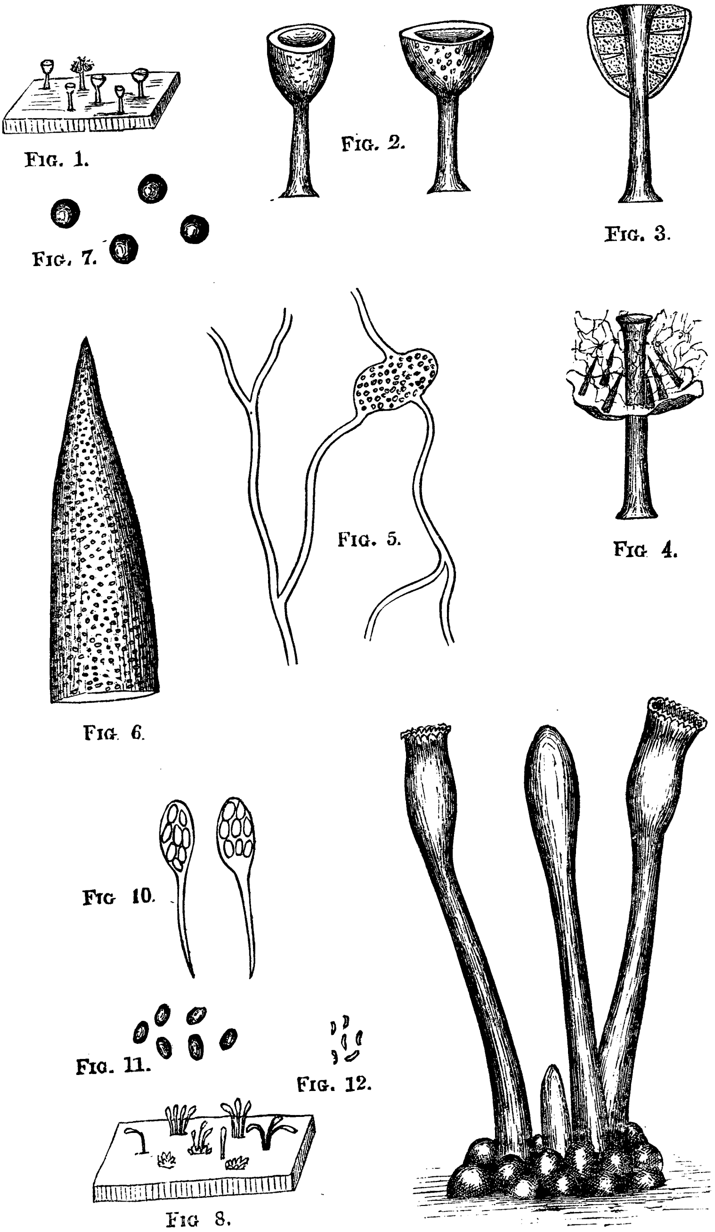
FIG. 1.
FIG. 2.
FIG. 3.
FIG. 7.
FIG. 4.
FIG. 5.
FIG. 6.
FIG 10.
FIG. 11.
FIG. 12.
FIG 8.
FIG. 9.

Figs. 1 to 7, PHYSARELLA MIRABILIS, Pk.
Figs. 8 to 12, CALICIOPSIS PINEA, Pk.